



NAPT 101  
Student Transportation  
Orientation

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# *Professional Development Series*



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# **NAPT 101 • Student Transportation Orientation**

## Professional Development Series

### **Lead Course Development Subject Matter Expert**

Ted Finlayson-Schueler

### **Additional thanks to**

Denny Coughlin

George Horne

Kathy Furneaux

Jeff Sherwood

Reg Clarke

Bob Peters

Steve Kalmes

### **Workbook design & layout**

Mark Hartman-Souder, PTSI

### ***Disclaimer -***

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Founded in 1977, the **National Association for Pupil Transportation** (NAPT) is a 501 (c) (6) nonprofit organization that supports a \$10.5 billion industry of over 450,000 people who transport more than 24 million children every school day. NAPT members receive timely information through cutting-edge educational programs, unique research, and thought-provoking communications in a variety of electronic and hard-copy formats that enables members to develop practical solutions to today's school transportation, educational administration and other business-related challenges.

NAPT is the school transportation industry's largest and most diverse membership organization with members throughout the United States and Canada, as well as several countries in Europe, Asia and the Middle East. NAPT is headquartered in Albany, NY. For more information, visit [www.napt.org](http://www.napt.org)



Founded in 1990, the **Pupil Transportation Safety Institute** (PTSI) is a national nonprofit school bus safety education organization. PTSI's sole focus is promoting school bus safety and efficiency — giving all students who ride school buses the opportunity to arrive at school *physically safe, emotionally secure, and ready to learn<sup>SM</sup>*.

PTSI serves the school bus industry through training resources for drivers, attendants, students, and managers; keynote, workshop, driver in-service, and train-the-trainer presentations; consultation services for school districts, Head Starts, and contractors; and program development and evaluative studies for state and federal agencies. PTSI is headquartered in Syracuse, NY. For more information, visit [www.ptsi.org](http://www.ptsi.org).

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# Welcome from NAPT

*The National Association for Pupil Transportation (NAPT), headquartered in Albany, NY, is a nonprofit organization that supports a nearly \$11 billion industry of over 450,000 people who transport more than 24 million children every school day.*

*NAPT is the school transportation industry's largest and most diverse membership organization. Professional school transportation personnel from both the public and private sector work side by side with school bus chassis, body and component manufacturers and after-market service and product suppliers to develop and provide a wide variety of education and information services to NAPT members in the United States and Canada as well as several countries in Europe, Asia and the Middle East.*

*NAPT members receive timely information through cutting-edge educational programs, unique research, and thought provoking communications in a variety of electronic and hard-copy formats that enables them to develop practical solutions to today's school transportation, educational administration and other business-related challenges.*

## ABOUT THE NAPT TRAINING PROGRAM

*Like all industries, pupil transportation has its routines and customary practices. After all, the focus of our business - transporting children safely to and from school - has not and is not likely to change any time soon.*

*Our operational environment, however, is constantly changing – and not just physically. New laws and regulations constantly affect not only our vehicle management and fleet maintenance but our human resource and financial management as well. Any serious professional knows that complacency – the “that’s the way we’ve always done it” mentality – is neither the right attitude nor approach if your goal is long term success.*

*Understanding and capitalizing on the new challenges and opportunities we face demands continuous learning. It also cries out for sensible, practical professional development. This latter issue is especially critical to the industry as a whole because the work involves a performance expectation that is among the highest of any profession.*

*When we set out to create the NAPT Training Program, we had two simple and straightforward goals: **We wanted to enhance the image of the industry while helping our members grow as school transportation professionals.** Our ultimate aim has always been – and still is – to create a professional development model that encourages people to think seriously and analytically about the full range of issues that affect their professional endeavors in the pupil transportation field. **We also wanted to offer practical, affordable educational opportunities that would enable people to make logical choices about their careers.***

*We spent more than three years researching, developing and test-marketing a training model that would meet these objectives. The NAPT Training Program is the end result. In sum, it is a showcase for pupil transportation as an attractive career choice - one that follows a logical and realistically attainable progression - whether it's for drivers, technicians, operations specialists or managers.*

*As our members already know, NAPT is constantly striving to be the industry leader when it comes to creative solutions to today's business challenges. We firmly believe in continuing education and professional development. We think that we have developed one of the most comprehensive and affordable educational programs ever created for the school bus industry. We hope that it meets your needs.*

*For more information about NAPT and the NAPT Training Program, call 800-989-NAPT or visit [www.napt.org](http://www.napt.org).*

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# Welcome to NAPT 101

This course provides a comprehensive introductory overview of all aspects of contemporary pupil transportation. NAPT 101 course provides the foundation for all other NAPT courses.

Pupil transportation is a uniquely broad field of study. At a minimum, the pupil transportation administrator must have a basic understanding of:

- Pertinent federal and state laws
- Current recommendations & best practices from industry peers
- How school districts function internally
- Employee relations and personnel management
- Fiscal management
- Bus specifications and maintenance
- Routing procedures
- Safety principles and procedures
- Student management
- How to communicate effectively with parents and the public

Pupil transportation is also unique in another way: it's constantly changing. Last year's knowledge is usually insufficient. New government mandates are regularly enacted and new vehicle technologies are constantly being introduced to the industry. Changing economic conditions affect school districts and pupil transporters in unpredictable yet profound ways. To its credit, the pupil transportation industry regularly adopts new safety procedures to further increase the already remarkable level of safety provided to students. And of course, the student population itself has changed markedly, reflecting societal changes. Few problems in our country, or even the world, don't eventually find their way onto a school bus in one form or another.

Clearly, pupil transportation is not for the faint of heart! But few professions offer such an opportunity to serve children and help improve our society. Few professions "get into the blood" like pupil transportation.

This course will provide both new and experienced pupil transportation professionals with a sound foundation for staying "on top" of such a complex, rapidly-changing, and important field of endeavor

***Note: this is an introductory-level course. The material covered in this course is covered in greater depth in the NAPT 400, 500, 600, and 800 series courses.***

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# Course Goals

## You will learn:

1. Where the pupil transportation industry has been and where we are going
2. The guiding statutes and principles of pupil transportation
3. The basics of Local Educational Agency (LEA) structure and personnel matters
4. The basic principles of operation, routing, and safety
5. The fundamentals of working with children

**Note:**

*The information presented in this course is of necessity general in nature, and in some instances may differ from state laws or regulations. It is the student's responsibility to know and follow their own state's laws and regulations.*

# Where We've Been and Where We're Going

Period	Education Trends	Pupil Transportation Industry Trends	Vehicle Evolution
1800's	One room schools	All contract - often farmers	School wagons, blacksmiths
1900-1920's	Urban consolidation, Union High Schools	Principals oversee transportation	
1930's	State educational standards - mandatory attendance	District fleets	Wagon body on truck chassis
1940's	Rural consolidation	National Standards (1939), School Bus Safety Week	All steel bus
1950's		Transportation managers	
1960's-1970's	School district growth - neighborhood to municipal to county districts, desegregation programs, IDEA	Transportation associations, publications, federal training programs	Federal construction standards
1980's	Growth of special education services	CDL, state training programs, overall safety record improves	Emergency exits, wheelchair securement systems
1990's		NAPT matures, loading and unloading accident rate declines, drug/alcohol testing, Headstart, computerized routing	Mirrors, rejection of non-conforming vans, child restraints
2000-?	Educational standards and testing	Security issues, late busing, courtesy busing	Emission control

## How's your school transportation history?

- Consolidation of rural schools began in what year? \_\_\_\_\_
- Transportation was first provided by a school district in what year? \_\_\_\_\_
- In what state was transportation first provided to students by a school district?  
\_\_\_\_\_
- By what year had all states authorized school consolidation? \_\_\_\_\_
- How many students were being transported to and from school in 1920?  
\_\_\_\_\_ million

## Pupil Transportation Today

***Which types of transportation is your operation presently involved in?***

- ☐ Home to school
- ☐ Preschool
- ☐ Headstart
- ☐ Teen mom programs
- ☐ Special education
- ☐ Medically fragile
- ☐ Private and charter schools
- ☐ Job site transportation
- ☐ Field/activity/sports trips
- ☐ Long distance school charters
- ☐ Integrated community transportation

***In your opinion, which issue will affect your operation most in the next year?***

- ☐ Security
- ☐ Driver shortages
- ☐ Budget constraints
- ☐ Emission controls
- ☐ Driver training
- ☐ Student management
- ☐ Lap-shoulder belts
- ☐ Special education
- ☐ Staff morale
- ☐ Preschool transportation
- ☐ Other - describe:  
\_\_\_\_\_



## Pupil Transportation: the Historical Context

(From *Special Report 222: Improving School Bus Safety*)

In 1869 the Commonwealth of Massachusetts passed the first legislation in the United States allowing the use of public funds for transporting school children. By 1919, with the passage of legislation in Wyoming and Delaware, all 48 states had enacted laws comparable to the Massachusetts statute. The primary reasons that states passed such legislation appear to be (a) state-mandated, compulsory school attendance and (b) the consolidation of public schools.

In colonial America, schools were the province of the church rather than the state. Although some states (e.g., Massachusetts in 1642) did require the operation of public schools by local townships, church-supported educational facilities predominated.

During the first half of the 19th century, the public school movement in the United States gained momentum as localities increasingly began to build and operate schools at public expense. By the second half of the century, the public school movement had advanced to the point that the welfare of the state was considered to be dependent on the education of its people. State governments became more actively involved in public education, and school attendance became compulsory. With state and local government involvement in public education, and with the concept of compulsory school attendance well established, the consolidation of public schools to reduce public expenditures and to enhance the quality of education followed.

The transporting of school children at public expense to consolidated schools located at greater distances from their homes was a natural consequence of the changing concept of public education. Without public funds for transportation, consolidated schools would

have been unreachable by many students, particularly those living in rural areas. For these students, school attendance would have been impossible, even though compulsory.

In the 20th century states began to provide financial support for public education, and with that support the rate of public school consolidation increased as did the number of children transported to and from schools at public expense - both in absolute numbers and as a percentage of school enrollment.

Two new developments in the 20th century further encouraged the consolidation of public schools and the transporting of school children at public expense: (a) hard surfaced, all-weather roads and (b) the motor vehicle industry. With these developments, schools could be consolidated over larger geographic areas. Commuting distances that would have been prohibitive in the 19th century were now feasible. In 1910 there were almost 0.25 million miles of all-weather, surfaced roads in the United States. By World War II this number had grown to more than 1.5 million. Also, there were approximately 0.5 million motor vehicles registered in the United States in 1910. By 1940 motor vehicle registrations had increased to more than 32 million.

In the last 50 years, with the expansion of the nation's system of streets and highways and the continuing development of the motor vehicle industry, the number of vehicles used for transporting children to and from school has increased almost sixfold (as of 1986). The 58,000 vehicles that were used to transport school children at public expense in 1929-1930 increased to nearly 340,000 in 1985-1986.

# **“Who Says?”**

## **Government Oversight of Pupil Transportation**

### **Acronym Awareness**

*What do the following abbreviations stand for?*

NHTSA: \_\_\_\_\_

NTSB : \_\_\_\_\_

FTA : \_\_\_\_\_

FHA : \_\_\_\_\_

FMCSA : \_\_\_\_\_

TEA-21 : \_\_\_\_\_

TSA : \_\_\_\_\_

CFR : \_\_\_\_\_

FERPA : \_\_\_\_\_

IDEA : \_\_\_\_\_

EPA : \_\_\_\_\_

OCR : \_\_\_\_\_

HHS : \_\_\_\_\_

FMVSS : \_\_\_\_\_

TRB: \_\_\_\_\_

## Who Does What?

*Many federal agencies impact student transportation. Laws are layered and complex. From the list below, identify which federal agency or statute (identified in the glossary on the previous page) has primary responsibility for each government function. (Note: agencies and statutes may be listed more than once)*

### Government Functions

General highway safety

\_\_\_\_\_

Drug and alcohol testing

\_\_\_\_\_

Commercial driver licensing

\_\_\_\_\_

Hours of service for drivers

\_\_\_\_\_

Municipal transit operations

\_\_\_\_\_

School bus driver training

\_\_\_\_\_

Head Start transportation

\_\_\_\_\_

Security

\_\_\_\_\_

Accident investigation and analysis

\_\_\_\_\_

Safety recommendations to congress and other government agencies

\_\_\_\_\_

Non-conforming vehicles

\_\_\_\_\_

Preschool transportation guidelines

\_\_\_\_\_

Car seat technicians

\_\_\_\_\_

Recalls

\_\_\_\_\_

Multifunction school bus

\_\_\_\_\_

**What do  
YOU  
think?**

Are your state's school  
bus driver standards  
tougher than the federal  
government's?

## ***Drug and Alcohol Testing - the Basics 49 CFR Part 382***

### **Alcohol Prohibitions**

- *Use while performing safety-sensitive function with a concentration of 0.04 or greater*
- *Concentration of 0.02 and less than 0.04 shall be removed from service for 24 hours*
- *Use within 4 hours of going on duty*
- *Use after an accident*

### **Prohibited Drugs**

- *Marijuana (THC)*
- *Cocaine*
- *Opiates*
- *Amphetamines*
- *Phencyclidines (PCP)*

### **Types of Drug and Alcohol Testing**

- *Pre-employment (drug only)*
- *Random*
- *Reasonable suspicion*
- *Return-to-duty*
- *Follow-up*
- *Post-accident*

### **Required Drug and Alcohol Training**

- *Pre-employment*
- *Supervisor reasonable suspicion*

**What do  
YOU  
think?**

Does your operation have a clear written policy regarding the consequences for a positive test?

# Moving Kids Safely

*The Federal Motor Carrier Safety Administration (FMCSA) has been charged to significantly reduce the number of fatalities resulting from all types of CMV crashes, regardless of whether they are “interstate” in nature. In order to achieve this goal, the FMCSA must employ safety strategies that exceed its traditional scope of enforcement programs to improve the safety of transportation performed by motor carriers and individuals that it does not regulate. “Moving Kids Safely - by Bus” is one of these strategies.*

**Objective:** Improve the way that bus companies are selected for transporting students to extra-curricular activities, by working with the States to develop and implement a method to eliminate unsafe bus companies from consideration. This initiative will result in the use of safer bus companies (operating yellow buses or motor coaches) to transport school kids, and an increased awareness of safety by those competing for the student transportation market.

**Strategy:** The FMCSA will facilitate a meeting in each State involving representatives of the education, pupil transportation, motor coach transportation, and highway safety organizations throughout the State. The objective is to identify the problem, to develop a simple process of identifying unsafe motor carriers, and to agree to implement the process uniformly throughout the State. The outcome being sought is that pupil transportation managers in every State will consider safety when creating lists of bus companies that are used by local school trip planners to transport students on field trips and extra-curricular activities.



- Vehicle Characteristics
- Driver Qualifications
- Creating a Procedure
- Administrative Process
- Prescreening - Approved Vendor
- Trip Commencement
- En Route
- Trip Control

## **NHTSA Preschool Guidelines**

- Each preschool child must be transported and properly secured in a suitable, approved Child Safety Restraint System (CSRS)
- Children remain in CSRS up to 50 pounds
- When a bus is purchased or retrofitted, owner must make sure that seat spacing is sufficient

## **NHTSA CSRS Guidelines**

### **Specifications**

- Must meet FMVSS
- Certification label affixed
- Proper fit for weight/size of child
- Special medical conditions must be taken into account
- Should be registered when purchased
- Recalls should be immediately implemented
- Periodically require cleaning and inspection
- Must be disposed of after a crash

### **Installation**

- CSRS are located starting in the front of the bus
- Width of CSRS(s) and passengers does not exceed seat width
- CSRS placed next to window if there is another passenger in the seat
- Personnel are properly trained in installation - installation can be challenging
- Children in CSRS should be supervised during the bus ride

### **Evacuation Concerns**

- A written evacuation plan should be developed
- Evacuation drills should be held
- Bus personnel should be trained in evacuation techniques
- Seat belt cutters should be provided on the bus
- CSRS should not be placed next to emergency exits
- Local emergency responders should understand emergency plans

## Guideline 17

### Administration

- Definition of bus (motor vehicle designed to carry 10 or more)
- One state agency should collect information on school bus accidents
- States should develop training & selection standards for drivers and supervisors

### Safety: States and/or school districts should:

- Develop uniform standards regarding school bus stopping on highways and public awareness regarding bus stops
- Review routes for safety hazards annually
- Provide student instruction in safe riding practices, evacuation procedures, and loading and unloading at least 2x/year
- Ensure no standees and ensure that all students are seated
- Advise school districts to exercise judgement in deciding how many students are actually transported in a bus
- Provide loading and unloading zones off the main traveled part of highways when it is practical to do so
- Require passengers in school buses and school chartered buses with a gross vehicle weight rating (GVWR) of 10,000 pounds or less should be required to wear occupant restraints (where provided) whenever the vehicle is in motion
- Establish restricted loading and unloading areas for buses at or near schools
- Replace pre-1977 buses consistent with economic realities
- Prohibit use of red flashing lights for any other purpose other than loading or unloading passengers
- Prior to each departure, each pupil transported on an activity or field trip in a school bus or school-chartered bus should be instructed in safe riding practices and on the location and operation of emergency exits

### What do YOU think?

Should pupil transporters follow pertinent agency recommendations as well as laws?

### Maintenance

- Buses should be inspected at least semiannually
- A pretrip should be performed on each bus daily, and problems should be reported in writing
- Pre-1977 buses should be replaced
- Safety equipment, color, black bumpers, stop arms, fire extinguisher, etc.

## NTSB Recommendations - Examples

***From Motorcoach Run-Off-the-Road Accident,  
New Orleans, Louisiana, MAY 9, 1999,  
NTSB Highway Accident Report 01/01***

**To the Federal Motor Carrier Safety**

**Administration:** Develop a comprehensive medical oversight program for interstate commercial drivers that contains the following program elements:  
Individuals performing medical examinations for drivers are qualified to do so and are educated about occupational issues for drivers. (H-01-17) A tracking mechanism is established that ensures that every prior application by an individual for medical certification is recorded and reviewed. (H-01-18) Medical certification regulations are updated periodically to permit trained examiners to clearly determine whether drivers with common medical conditions should be issued a medical certificate. (H-01-19) Individuals performing examinations have specific guidance and a readily identifiable source of information for questions on such examinations.

(H-01-20) The review process prevents, or identifies and corrects, the inappropriate issuance of medical certification. (H-01-21) Enforcement authorities can identify invalid medical certification during safety inspections and routine stops. (H-01-22) Enforcement authorities can prevent an uncertified driver from driving until an appropriate medical examination takes place. (H-01-23) Mechanisms for reporting medical conditions to the medical certification and reviewing authority and for evaluating these conditions between medical certification exams are in place; individuals, health care providers, and employers are aware of these mechanisms. (H-01-24) Develop a system that records all positive drug and alcohol test results and refusal determinations that are conducted under the U.S. Department of Transportation testing requirements, require prospective employers to query the system before making a hiring decision, and require certifying authorities to query the system before making a certification decision. (H-01-25)

***From Collision of CSXT Freight  
Train and Murray County School  
District School Bus at Railroad/  
Highway Grade Crossing, March  
28, 2000,***

**NTSB Highway Accident Report  
01/03**

**To the States:** In cooperation with the National Association of State Directors of Pupil Transportation Services, develop and implement a program of initiatives for passive grade crossings and school buses that includes (1) installation of stop signs at passive crossings that are traversed by school buses except where an engineering study shows their installation would create a greater hazard; (2) use of information about whether school buses routinely cross passive grade crossings as a factor in selecting crossings to upgrade with active warning devices; (3) a requirement that all newly purchased and in-service school buses be equipped with noise-reducing switches; (4) enhanced school bus driver training and evaluation, including periodic reviews of on-board videotapes where available, especially with regard to driver performance at grade crossings; and (5) incorporation of questions on passive grade crossings in the commercial driver's license manual and examination. (H-01-38)  
**To the National Highway Traffic Safety Administration:** Implement rulemaking to prohibit radio speakers used for music or entertainment from being placed adjacent to drivers' heads in school buses. (H-01-39)

*more > > >*



## NTSB Recommendations - Examples, cont.

*From Collision of Northeast Illinois  
Regional Commuter Railroad Corporation  
(METRA) Train and Transportation Joint  
Agreement School District 47/155 School  
Bus at Railroad/Highway Grade Crossing  
in Fox River Grove, Illinois, on October 25,  
1995,*

**NTSB Highway/Railroad Accident Report  
96/02**

**To the National Association of State  
Directors of Pupil Transportation Services:**

Advise your members to check their school buses and disable any radio speakers located immediately adjacent to school bus drivers' heads. (H-96-51)

**To the National Highway Traffic Safety**

**Administration:** Determine what effect school bus sound attenuation materials have on the ability of a busdriver to discern both interior and exterior audible warnings. (H-96-43)

**To the Transportation Joint Agreement**

**School District 47/155:** Develop and implement a program for the identification of school bus route hazards and routinely monitor and evaluate all regular and substitute school bus drivers. (H-96-48)

## Know Your IDEA (Individuals with Disabilities Education Act)

*Define the following abbreviations and terms:*

FAPE:

IEP:

ITP:

LRE:

Section 504:

TNA:

FNA/BIP

FERPA:

### State Laws & Regulations

*Which agencies have jurisdiction over special needs pupil transportation in YOUR state? List them.*

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### Can you answer?

1. Is every attempt made to include children with disabilities on school buses with their non-disabled peers?
2. Do buses transporting students with disabilities load and unload in the same bus zone?
3. Do students with disabilities receive equivalent instructional time and ride time as students without disabilities?
4. Does transportation participate in the IEP (Individual Education Plan) process through committee attendance, related service assessments, and service plans?
5. Does transportation staff work cooperatively with school staff to provide a seamless integration of service for children with disabilities?
6. Are all bus drivers and attendants provided training in working with children with disabilities in general and the students they transport specifically?
7. Has redundancy been established for all transportation services for students with disabilities?
8. Do drivers activate red school bus warning lights during the entire loading and unloading process at the bus stop and at school?
9. Are CSRS's (Child Safety Restraint System) and Mobility Devices used properly?

# Transportation Research Board

- Studies for Congress
- Diverse Committee
- Literature/data review
- Debate
- Draft for review
- Final Product

## Special Report 222

Safety Measure	Maximum Lives Saved*
Pupil Education	.459
28" Seat Backs	.426
Stop Signal Arms	.299
External P.A.	.21
Crossing gates	.261
Electronic Sensors	.131
Bus monitors	.02
Lap seat belts	.023

\*\$1,000,000 per year investment

### "Must Reads"

- Improving School Bus Safety - Special Report 222 (1989)
- Relative Risk of School Travel - Special Report 269 (2002)

#### Available from:

Transportation Research Board/  
National Research Council  
2101 Constitution Avenue NW  
Washington, DC 20418

## Special Report 269

### Relative Risk of School Travel

Specific Category	School Bus	Other Bus	Cars, Trucks	Motorcycle	Bicycle	Pedestrian
Average Fatals	19.6*	1.25	616.1	16.8	46	130.8
General Category	All Bus		All Motor Vehicles Exc. Bus		"Walkers"	
Average Fatals	20.85		632.9**		176.8***	
Student Users by Mode	18,345,600 students		24,216,000 students		5,438,400 students	
Annual Risk	1 fatality in 879,884		1 fatality in 38,262		1 fatality in 30,760	
Other Facts	*Includes 4.5 passenger and 15.1 pedestrian fatalities		**463.7 involved child drivers		***Does not include school bus loading/unloading fatalities	

# Industry Resources

## Organizations and Associations

- NAPT
- NASDPTS
- NSTA
- PTSI
- School Bus Information Council
- State and local pupil transportation associations
- Other:

## Web-Based Resources - <http://www>

- [nhtsa.dot.gov](http://nhtsa.dot.gov)
- [ntsb.gov](http://ntsb.gov)
- [dot.gov](http://dot.gov)
- [fhwa.dot.gov](http://fhwa.dot.gov)
- [fmcsa.dot.gov](http://fmcsa.dot.gov)
- [fta.dot.gov](http://fta.dot.gov)
- [nsc.org](http://nsc.org)
- [stnonline.com](http://stnonline.com)
- [schoolbusfleet.com](http://schoolbusfleet.com)
- [napt.org](http://napt.org)
- [nasdpts.org](http://nasdpts.org)
- [ptsi.org](http://ptsi.org)
- [nhsa.org](http://nhsa.org)
- [schooltrans.com](http://schooltrans.com)
- [schoolbusinfo.org](http://schoolbusinfo.org)
- other \_\_\_\_\_

**What do  
YOU  
think?**

How important is it to be  
actively involved in your  
state transportation  
association?

## "National Standards" Conference

First "National Standards" conference was held in 1939. Organized by Frank Cyr, a far-seeing educator from Stamford, New York, the first conference included both educators and manufacturers and created the first written national standards for bus construction. The most famous achievement of the first conference was establishing a consistent color ("school bus chrome yellow") for all school buses - buses had been every possible color before that, often reflecting school colors.

The standards conferences evolved to include operational as well as construction issues and are held every five years in Warrensburg, MO. Delegations from all states and representatives from federal agencies and virtually every bus and bus equipment manufacturer are present. The decisions of the conference are published in book format shortly afterwards - until 2000 the publication was referred to as *National Standards*. In 2000 the publication was renamed *National School Transportation Specifications and Procedures*. The publication has steadily grown in size and scope over the years, and is an essential reference tool both for state regulators and field supervisors. It summarizes the current consensus of the school bus industry regarding all aspects of school bus construction and operations. The next conference will be in 2005.

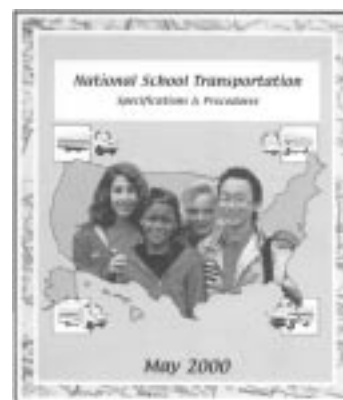
### Sponsoring Organizations of NSTSP

- National Safety Council
- NAPT
- NASDPTS
- NSTA
- Central Missouri State University
- SBMTC (School Bus Manufacturers Technical Council)

### Website:

[www.14thncst.org](http://www.14thncst.org)

## A "Must Read"



2000 Edition

### National School Transportation Specifications and Procedures

#### Order from:

Missouri Safety Center  
CMSU  
Humphreys Suite 201  
Warrensburg, MO 64093  
Phone: 660-543-4830

- **Book** (\$22)

- **CD** (\$60) (searchable - a very useful tool!)

- **Book & CD** (\$74 )

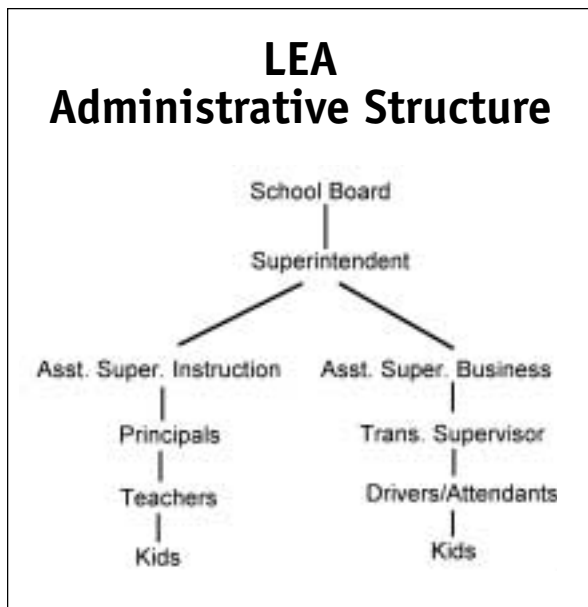
# Administrative Operation

## School District Responsibilities to Transportation

(From 2000 National School Transportation Specifications and Procedures)

The local agency responsible for pupil transportation should ensure compliance with federal and state pupil transportation laws, regulations and policies... Additionally, the local agency should:

1. Participate in pupil transportation operations within its jurisdiction, including training programs for all transportation personnel, review of school bus routes, investigation and reporting of crashes and other transportation problems and evaluation of the pupil transportation system.
2. Ensure that instruction in passenger safety, including student participation in emergency evacuation drills, is an integral part of the school curriculum. Instruction should comply with state requirements and/or Federal Highway Safety Guideline 17.
3. Provide supervision of loading and unloading areas at or near the school and provide ongoing evaluation of route pickup and drop-off locations for safety.
4. Provide adequate supervision for pupils whose bus schedules necessitate their early arrival or late departure from school.
5. Promote public understanding of, and support for, the school transportation program in general.
6. Develop and implement local pupil transportation policies and regulations, including those for students with special needs.
7. Provide transportation personnel the opportunity for growth in job-related activities.
8. Provide the necessary library of resources to ensure that transportation personnel have the proper tools to operate a safe and efficient program. These resources include but are not limited to:
  - a. Applicable federal, state and local laws, codes and regulations.
  - b. Applicable manuals and guidelines.
  - c. On-line connectivity for access to all internet and other resources.
  - d. Applicable trade journals and organizations' publications.



## Transportation Administrator Responsibilities

*(From 2000 National School Transportation Specifications and Procedures)*

The local pupil transportation director and/or private operator's specific duties include, but are not limited to:

- a. Providing assistance in planning, budgeting and forecasting for the pupil transportation system.
- b. Assisting in school site selection and facility planning.
- c. Providing, when appropriate, chassis, body and related equipment procurement.
- d. Developing and implementing a plan for preventive and on-going equipment maintenance.
- e. Recruiting, selecting, instructing and supervising personnel.
- f. Routing and scheduling buses for safe, efficient and economical transportation service.
- g. Assisting in the development and implementation of pupil safety education programs.
- h. Working with administrators, teachers, transportation personnel, students, parents and various public and private agencies to improve their knowledge and the quality of the transportation system.
- i. Investigating and reporting crashes, when applicable, using the uniform school bus crash reporting criteria.
- j. Investigating reported problems.
- k. Maintaining records and preparing reports, as required.
- l. Developing and supervising an on-going evaluation plan for the pupil transportation system.
- m. Implementing a drug/alcohol testing program in compliance with federal regulations for persons in safety-sensitive positions and Commercial Driver's License (CDL) drivers.
- n. Establishing and ensuring appropriate staffing levels.

### Human Resource Management Is...

*Note: NAPT's 400-series courses cover this material in greater depth*

- Recruiting, hiring, and retaining good employees
- Administering an effective employee evaluation program
- Influencing people for good
- Stimulating productivity
- Building teamwork
- Following employment laws
- Doing the right thing for the right reason

## The Art of Supervision - a Case Study

*(Adapted from NAPT 402)*

### THE SUPERVISOR'S PERSPECTIVE

*One of your better bus drivers, attitude-wise anyway, is a few minutes late several times a month. At least you think he is, because you've never actually noticed it. He always leaves on time, and is on time for his first stop, but other drivers have told you that he often sneaks in late, gets the keys to his bus, and then short-changes his pre-trip inspection so he can leave the yard on time. You've tried to catch him at it, but whenever you check on him, he's on time. When you mention the concerns to him, he denies it and says the some of other drivers are just trying to get back at him because he doesn't buy into their negativity and they think he is the supervisor's "pet". Besides, he says, so what if he's occasionally late: he never compromises safety and he's always at his first stop on time. What do you do?*

### THE EMPLOYEE'S PERSPECTIVE

You can't believe how petty people can be, and now your supervisor too. You've taken some hits from some of the drivers because you're positive and supportive of management, and because you genuinely care about students and your mission to transport them safely. Now people are trying to get him in trouble: sure he's a little late now and then, and maybe he does his pre-trip inspection in five minutes instead of fifteen, but he knows what he's doing and there's never been a problem. His "clients" never complain. It's just that it's always something in the morning. He's tried, but he thinks he's always going to be one of those people who's a few minutes late. What difference does it make?



## Know Your Employment Laws

- **Civil Rights Act of 1964 (amended in 1972 by the Equal Employment Act):** Title VI prohibits discrimination based on race, color, or national origin; Title VII prohibits discrimination or segregation based on race, color, religion, sex, or national origin; Title VII prohibits sexual harassment - both “quid pro quo” and “hostile environment” harassment; gender does not matter
- **Age Discrimination in Employment Act:** prohibits age-based discrimination
- **Americans with Disabilities Act:** a Federal Statute that applies to employers with more than 15 employees, and all state and local government employers; prohibits discrimination on the basis of disability; provides for equal access and opportunity for persons with disabilities; applies to employment, public services and public accommodations; does not require preferential treatment
- **Family Medical & Leave Act:** requires covered employers to provide annually up to the equivalent of 12 weeks of unpaid, job-protected leave to “eligible” employees for certain family and medical reasons.

### Equal Opportunity Employment vs. Affirmative Action

- EOE means every one gets an equal chance
- Affirmative Action means taking positive steps to reverse past discrimination - not “quotas”

## Interviewing: No-No Questions

- Race
- Color
- Sex
- Religious affiliation
- Political affiliation
- Marital or family status
- Age
- National origin
- Citizenship
- Physical or mental disability (unless a specific, critical job requirement exists)
- Arrest or conviction record (except as provided by state law for school district employees)

**What do  
YOU  
think?**

Is your operation's  
present training program  
adequate?

## Types of Training

**Note:** *NAPT's 600-series courses cover this material in greater depth*

- Pre-employment
- Inservice
- Retraining (after problem or other problem)
- State certifications
- Specific to child w/special needs
- Ongoing; informal safety meetings?

*(From 2000 National School Transportation Specifications and Procedures)*

### **Instructional program for school bus drivers:**

1. *Prior to transporting pupils, bus drivers should be required to complete a state-approved pre-service training program that includes classroom and behind-the-wheel training to enable safe and efficient vehicle operation.*
2. *A state-approved in-service program should be required.*
3. *Prior to transporting students with disabilities, the driver should receive appropriate training in compliance with Individuals with Disabilities Education Act (IDEA).*
4. *Drivers should receive drug and alcohol education as required in the Omnibus Transportation Employee Testing Act of 1991.*

### **Behind-The Wheel Instruction**

*Behind-the-wheel instruction should be given in the same type and size bus the driver will be operating. When a driver is expected to operate more than one size and type vehicle, instruction should be related to the specific handling characteristics of each. All instruction should include:*

1. *Familiarization with the bus and its equipment.*
2. *Procedures for performing pre-trip and post-trip vehicle inspections.*

## Training Program Checkup

**Instructions:** rate your operation's current training program in each of the following areas:

Adequate	Inadequate	N/A	
			Accident/emergency readiness
			Adverse weather
			Attendant training
			Attitude and professionalism
			Bullying prevention
			Bus yard safety
			Child Safety Restraint Systems
			Defensive driving: urban
			Defensive driving: rural
			Defensive driving: suburban
			Excessive idling
			Field trips
			First aid
			Highway driving
			Interaction and communication with parents & coworkers
			Loading and unloading safety
			Mountain driving
			Night driving
			Posttrip inspections
			Pretrip inspections
			Route and bus stop safety
			School site safety
			Sexual harassment
			Student management
			Universal precautions
			Violence prevention
			Wheelchair loading and securement

## The Importance of Road Observations

Some safety experts think road observations are the single most important factor in determining the actual day-to-day safety of a pupil transportation operation. The overall level of safety of a pupil transportation operation may be directly proportional to the quality and quantity of road observations conducted. Only a minority of states presently mandate periodic road checks for school bus drivers, although both “Guideline 17” and NSTSP recommend route and driver road checks. Developing an effective system of road observations is largely dependent on the initiative of the operator. Why are road observations so important? A road observation is conducted while the driver is transporting students on an actual route. Road checks provide a real-world evaluation of critical safety procedures such as loading and unloading.

Road observations might have prevented many student fatalities. Especially with loading and unloading procedures, there is no substitute for direct road evaluations. Driving a school bus is a unique job. Bus drivers are “on their own” to an amazing degree - they are largely unsupervised while they’re on the road. It’s only human nature to “stretch the rules a little” when no one’s watching. Regardless of how professionally your organization selects and trains drivers, once drivers “hit the road” things tend to get complicated. The supervisor or trainer who never manages to get out of the office and at least spotcheck drivers is asking for trouble. Even a few minutes every day of driving around “floating” through the school district, randomly observing buses, can have a tonic effect on all drivers in the fleet - simply because they know someone might be watching.

To be truly effective, road observations should be conducted systematically. Every driver should be observed at least once a year. Problem drivers (for instance, drivers who have had preventable accidents, credible citizen complaints, or previous problem observations) should be observed more often. This is not “discriminatory,” it is responsible management.

The most effective road checks are conducted from another vehicle following the bus. This is not easy. Watching the road and watching a bus at the same time is a challenge.

### ***What are you looking for in a road observation?***

- *Compliance with state vehicle and traffic laws.*
- *Defensive driving skills.*
- *Bus driver rushing and risk-taking (for instance, accelerating towards “stale green” traffic lights).*
- *Student behavior management. You may find out that the driver needs help but has been afraid to ask.*
- *Extent to which driver sticks to the approved route and designated bus stops (observer should have copy of route sheet with them).*
- *Unusual route hazards.*
- *Most important of all - loading and unloading procedures should be carefully assessed. There is no “small” error when it comes to loading and unloading safety procedures.*

*The evaluator should share the results of the observation with the driver afterward. Excellence should be commended. Problems noted should be discussed and the driver should be clearly instructed what must be done to correct them.*

## Principles of Performance Evaluations

- Performance evaluation criteria must be job-relevant
- Based on observable actions
- Evaluation process must be predictable and applied consistently to all employees
- Don't fill a poor employee's personnel file with great evaluations!
- Supervisor should provide worthwhile, factual feedback - both positive and negative
- Evaluations should be an opportunity for two-way communication between employee and supervisor
- Organizational or statutory timelines for evaluations should be adhered to
- Collective Bargaining Agreement provisions regarding employee evaluations must be followed
- The judgment of the evaluator is not typically subject to the grievance procedure

**Performance evaluation interviews are often stressful for employees. The evaluator should strive to make the interview as comfortable as possible for the employee.**

- Make sure the employee has reviewed the evaluation form prior to the evaluation interview. (Job expectations and evaluation procedures should be reviewed with the employee as part of the employee's orientation process.)
- Allow ample time for the employee to discuss the evaluation and ask questions.
- Begin with positive observations whenever possible.
- Relate all negative observations or comments to job performance. (Stress that the purpose of discussing negative information is to alleviate problems in the future, rather than to criticize the past.)
- Sandwich negative comments between two positive comments
- Conclude the interview with positive observations and comments

### **7 Tests of Just Cause**

1. *Was the employee adequately warned of the consequences of his conduct?*
2. *Was the company's rule or order reasonably related to efficient and safe operations?*
3. *Did management investigate before administering the discipline?*
4. *Was the investigation fair and objective?*
5. *Did the investigation produce substantial evidence or proof of guilt?*
6. *Were the rules, orders, and penalties applied evenhandedly and without discrimination?*
7. *Was the penalty reasonably related to the seriousness of the offense and the past record?*

## Weingarten Rights

***The U.S. Supreme Court decision in Weingarten allows an employee, at his or her request, the right to have a union representative at an investigatory meeting that may result in disciplinary action.***

1. Let the employee know at the outset of an investigatory interview
  - (a) that you need to meet with him or her to discuss a matter that may result in disciplinary action, and
  - (b) the subject matter of the interview.
2. At the employee's request, the employee may bring to the meeting a union representative.
  - (a) The employee does not have the right to select a particular union representative, e.g., one that is on leave that day or one that works in another department/building when one is available at the work site.
  - (b) The employee is not entitled to bring anyone other than a union representative, e.g., the employee may not bring his or her mother, spouse, friend, or attorney.
  - (c) The law does not require that you remind the employee of this right, but some collective bargaining agreements require this.
3. If the employee does not request union representation, representation does not need to be provided.
4. After a union representative has been secured, the representative may make appropriate requests on behalf of the employee. For example, the union representative may request and should be granted an opportunity before the investigatory interview to conference with the employee.
5. The union representative is present to assist the employee, to clarify facts, and to advise the employee of any rights he/she may have under the bargaining agreement.
  - (a) You may not require the union representative to remain silent.
  - (b) The union representative is not present to bargain with you or to interfere with your investigation. You may advise the union representative that you are interested in hearing the employee's own account of the matter under investigation. Discontinue the meeting if the union representative keeps you from conducting the meeting.
6. Weingarten does not apply to employees who are not represented by a union.

## Loudermill Rights

***The U.S. Supreme decision in Loudermill requires that before an employee is disciplined by way of termination or suspension, the employee must be given:***

- (a) an oral or written notice of the charges against him or her;
- (b) an explanation of the District's evidence against him or her; and
- (c) an opportunity to present his or her "side of the story."

## **Employee Files**

- Hiring documentation
- Job descriptions
- Wage/time records
- Training
- Testing
- Certifications
- Evaluations
- Discipline/Accidents/Incidents
- Communications/memos etc.
- Separate health records
- Accidents and incidents
- Learn state laws for retention periods
- Confidentiality is critical



## Budget and Finances

### What is a budget?

- A plan of support for the overall educational plan of the school district
- A reflection of costs for specific items required to implement the plan
- A time-sensitive estimate of costs
- A document that is subject to change as needs or circumstances change

**Note:**

***NAPT's 300-series courses cover this material in greater depth***

### Understand the annual budget cycle

- Budget planning
- Budget preparation
- Budget presentation
- Budget adoption
- Budget review
- Budget revision

### Budget Fund Categories

- General: operational costs
- Capital: vehicles, equipment, hardware
- Federal: various grants that may include transportation options

## Fund Categories Exercise

*(Adapted from NAPT 302)*

**Instructions:** Match the following fund sources to budgetary line items by placing the letter(s) of the fund source(s) in the blanks beside appropriate budgetary line items.

<u>FUND SOURCE</u>	<u>BUDGETARY LINE ITEM</u>
A. General	___ Cleaning supplies/ shop towels
B. Capital	___ Salaries of maintenance personnel
C. Federal	___ Advertising for bus driver applicants
D. Other	___ Tires
	___ Grant from NHTSA to study effectiveness of school bus stop arms
	___ General printing
	___ School bus purchase
	___ Air conditioning units for office building
	___ Training for special needs drivers and attendants
	___ Second-language training for bus drivers
	___ Fuel and lubricants
	___ Purchase of land for new shop facilities
	___ Grant from county sheriff to purchase crossing guard uniforms

## Key Tips for Administrative Success

- Know your organization – each one's unique
- Don't make mistakes with hiring, employment, or discipline protocols
- Monitor your budget
- Support, involve, and educate your staff
- Treat employees fairly and consistently
- Be an example of professionalism and dedication to children

**What do  
YOU  
think?**

Who was the best transportation administrator you've ever known? What personal characteristic do you most admire about that individual?

# School Bus Construction and Specifications

*Note: NAPT's 500-series courses cover this material in greater depth*

## Basic types of school buses

*Describe the characteristics of each type of school bus:*

Type A1:

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Type B2:

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Type A2:

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Type C:

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Type B1:

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Type D:

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**What do  
YOU  
think?**

Which is a  
better bus C or D?

## Nonconforming Vans

- Any vehicle designed to carry more than 10 persons is classified as a bus
- Any bus used for school transportation must meet FMVSS
- Federal law prohibits dealers from selling or leasing new non-conforming vans for school transportation purposes
- Some states also prohibit the use of non-conforming vans for school transportation

## ***Vans Used for School Transportation***

*(From National Association of State Directors of Pupil Transportation Services, 2000)*

*Manufacturers of full-sized passenger vans (Chrysler Corporation, Ford Motor Company, and General Motors Corporation) have provided written notification to each of their dealers of the federal law as a reminder not to sell/lease passenger vans with seating capacities of more than 10 persons to schools. Unless the van has been modified, and certified by the manufacturer/modifier as a school bus, it is considered a “non-conforming” van, since it does not conform to the Federal Motor Vehicle Safety Standards for school buses. It is the responsibility of the seller/lessor to ascertain the intended use of the vehicle. The seller/lessor is subject to substantial penalties for knowingly selling or leasing a vehicle that does not meet the Federal Motor Vehicle Safety Standards for school buses, including civil fines and injunctive sanctions. It is unfortunate that some sellers/lessors apparently are ignoring this information.*

*Full-sized passenger vans and mini-vans do not offer the same level of safety to occupants as a full-sized school bus or a school bus built on a van-type chassis. In a crash, the risk of a serious injury or fatality is significantly higher for the occupants of a van. Typically, any crash resulting in serious injuries or fatalities to school children results in lawsuits. The fact that a school used a vehicle that was not manufactured, sold, or leased in accordance with federal laws governing school transportation most likely would be a significant issue in the lawsuit. Depending upon state insurance regulations and insurance policies themselves, this fact could have an impact on the liability responsibilities of the insurance company used to insure the operations of the school.*

## School Bus FMVSS

As a result of the passage of the National Traffic and Motor Vehicle Safety Act of 1966 and the School Bus Safety Amendments of 1974, NHTSA has issued 36 Federal Motor Vehicle Safety Standards (FMVSS) which apply to school buses.

### **4 FMVSS are limited to school buses.**

- 131** “School Bus Pedestrian Safety Devices,” which requires school buses be equipped with an automatic stop signal arm on the left side of the bus to help alert motorists that they should stop their vehicles because children are boarding or leaving a stopped school bus.
- 220** “School Bus Rollover Protection,” specifies the minimum structural strength of buses as a protective feature in rollover-type accidents
- 221** “School Bus Body Joint Strength,” specifies the minimum strength of the joints between bus body panels
- 222** “School Bus Passenger Seating and Crash Protection,” establishes requirements for school bus seating systems for all sizes of school buses, provides minimum performance requirements for wheelchair securement/occupant restraint devices, and establishes a requirement that wheelchair locations be forward facing

***In addition, several other FMVSS include unique requirements for school buses.***

- 108** “Lamps, Reflective Devices, and Associated Equipment,” requires amber and red warning lights when the bus is stopped, or about to stop, to load or unload passengers
- 111** “Rearview Mirrors” requires outside mirrors that provide the seated driver with a view of the Danger Zones in front of and along both sides of the bus
- 217** “Bus Emergency Exits and Window Retention and Release,” specifies the number and operation of emergency exits
- 301** “Fuel System Integrity,” defines crash performance requirements for the entire fuel system

## Vehicle and equipment choices and options

The following list represents only a few examples of the optional features offered by some bus and equipment manufacturers. Options available vary from manufacturer to manufacturer, vehicle to vehicle, and year to year. Some after-market options may not be adaptable for your vehicles. Some of the examples listed may already be required by your state, while others may not be allowable - consult your state regulatory agency. Check with your local dealers for a more complete list of offered options and pricing. (Note: many optional features offer both advantages and disadvantages, careful consideration is in order when considering a new option.)

- **3-2 seating.** 3-2 seating provides more rump room per passenger and allows larger students to sit properly within the seat compartment; vehicle capacity is reduced by 17%.
- **Acoustical headliner.** May reduce driver distraction due to passenger noise.
- **Additional handrails.** Some vehicles can be ordered with an additional handrail to help young children or children with special needs get on and off the bus.
- **Air conditioning.** Air conditioning is an expensive option, both at initial purchase and subsequently to maintain, but may be required when transporting infants or fragile children with special medical conditions. Air conditioning units can be installed front and/or rear and vary in output. Air conditioning may be manufacturer-installed or after-market.
- **Air horn.** A supplemental air-powered horn may be useful in alerting motorists of the presence of the bus or a child in the road.
- **Automatic fire suppression system.** Heat activated extinguishing systems for the engine compartment and electrical circuits are available on some buses.
- **Auxiliary heaters.** Maintaining a reasonable comfort level on a large vehicle is not easy, especially when frequently stopping to board or discharge passengers. Defrosting windows for adequate driver visibility can also be difficult in winter conditions.
- **Back-up beeper.** Required by some states (and federal Head Start), back-up beepers are relatively inexpensive and may reduce the risk of backing over someone on the route or in the bus yard. Beepers that adjust for ambient noise levels are available.
- **Brake interlocks.** Mechanisms which lock the vehicle service or parking brakes when the entrance or wheelchair-lift door is open may help prevent loading or unloading accidents.
- **Car seat-friendly seat belts.** Seat belts on vehicles transporting children using child safety restraints should be ordered with "short stalks" - the nonadjustable end of each belt should be no longer than 1-2 inches from the seat cushion or bight. The short nonadjustable end should be in the aisle position to keep unused belts from hanging into the aisle.
- **Child check systems.** To reduce the possibility of leaving a child on the bus, several vendors have developed systems to force drivers to go to the back of the vehicle prior to exiting. Note: no equipment or technology is fail safe; drivers have still left children on board vehicles equipped with "child find" systems.
- **Crossing gates.** Mandated by some states and some bus contractors, crossing gates may reinforce student safe crossing procedures. Note: crossing gates definitely do not totally eliminate the danger of running over a child; "by-own-bus" tragedies have still occurred with buses equipped with crossing gates.
- **Data recorders.** Electronic data recorders are available for all types of vehicles, including buses, and can provide accurate monitoring of critical driver actions such as speed, braking, signaling, etc. Electronic data recorders are expensive and require base software as well as the vehicle units.

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- **Driver seats.** More comfortable driver seats, with high backs, armrests, air suspension, lumbar support and other features, are available as an option on most buses, and may reduce driver health problems and improve driver attitude.
- **Engine block heaters.** A common option in cold weather areas to help start diesels.
- **Fire block upholstery.** “Fire block” seat covers may retard the spread of an onboard fire.
- **Fire blankets.** Fire and evacuation blankets specifically designed for mounting in buses are available and may be especially important for buses transporting children with special needs.
- **Four wheel drive** Four wheel drive vehicles may be advantageous for some rural routes.
- **Fuel choice.** Diesel engines are available even for most smaller school vehicles today. Diesel engines are generally considered more durable than gasoline engines. It is also less volatile than gasoline and may reduce fire dangers somewhat.
- **Fuel tank location.** Fuel tanks between the frame rails are better protected in most types of crashes and if the chassis configuration permits it should be considered. Manufacturers can usually provide a variety of chassis options for each type of vehicle.
- **Heated and power-adjustable mirrors.** Heated mirrors can provide an important safety benefit in cold-weather climates. Power-adjustable driving mirrors are expensive but may also provide important safety benefits, such as reducing lane encroachment crashes.
- **Heated windshield wipers.** Available as option on some vehicles; may be very helpful in winter driving.
- **Heavy duty alternators.** Heavy duty alternators may be useful in applications such as severe winter weather areas where multiple heaters and other equipment operate simultaneously, loading the electrical system. Wheelchair lift-equipped vehicles may also benefit from heavy duty alternators.

- **Heavy-duty transmission.** Vehicles in heavy load applications may benefit from heavy-duty transmissions.

## What do YOU think?

Which type of transmission makes most sense for your operation?

- **Integrated safety seats.** Some or all seats may be equipped with integrated child safety vests, making those seats suitable both for children needing child safety restraints, and older children.
- **Intelligent mirrors.** Mirrors that provide digital reading of the distance between the vehicle bumper and an object are available.
- **L.E.D. lighting.** May reduce replacement costs when allowable by state regulatory agencies.
- **Light monitor.** An internal monitor helps the driver know his/her lights are still functioning properly on a route or trip.
- **Low step height.** May make it easier for young children to board the bus.
- **Master Noise Kill Switch.** Recommended by the National Transportation Safety Board, master noise kill switches are now standard on some buses and available on others; they make it easier for a driver to silence the bus to listen for approaching trains at railroad crossings.
- **Padded side walls.** Padded bus side walls (just below the side windows) may provide a higher level of protection to young children.
- **Padded sun visor.** To reduce the possibility of driver cutting his/her head when moving into or out of the bus seat when the visor is lowered.

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- **Power doors.** Powered entrance doors (air or electric) may reduce repetitive stress injuries to drivers, and designs have been improved in recent years. Some manufacturers have now repositioned the door control switch on the driver's right side so children boarding or exiting are in full view.
- **Rear-mounted stop arms.** A second stop arm mounted at the rear of the vehicle might be a useful option in areas where passing motorists are a concern. Multiple stop arms should be controlled by a single "master switch" to reduce the chance of driver error.
- **Reflective bumper.** High visibility reflective diagonal striping on the bumpers may reduce rear-end collisions.
- **Retarders.** Retarders to supplement standard braking systems are an important safety feature in areas with steep grades and are required in some jurisdictions. A variety of retarder designs are available.
- **Roof hatch.** A variety of roof hatch designs are available. Supervisors should explore which designs might be easier to operate in a severe emergency.
- **Roof ID.** Placing the vehicle number in large digits on the bus roof may help law enforcement locate a bus in a hijacking, terrorist, or other type of incident.
- **Seat spacing.** Maximum allowable seat spacing makes it easier to install safety seats.
- **Storage.** Many school buses lack adequate storage space both for student and driver items. A variety of under-body luggage compartments are available, including pass-through and locking compartments. Compartments that open on the passenger side of the vehicle reduce the exposure to traffic dangers to those accessing them. Some states allow overhead luggage racks and they may be useful for activity trip buses. Providing adequate storage areas for driver materials, including a locking glove box, should be discussed with vehicle manufacturers when ordering buses. After-market storage systems such as seat pouches are also available.
- **Strobe lights.** In areas prone to heavy fog or snow, roof-mounted strobe lights may help reduce collisions. Some states do not presently permit school buses to use strobe lights, although they're required in others.
- **Suspension.** An initial investment in heavy-duty suspension systems and axles might be worth the significant additional cost for buses servicing rural areas with dirt roads. Air suspension systems are standard on some vehicles and available as an option on others, and may provide a gentler ride for fragile passengers.
- **Tinted windows.** May reduce the interior temperature of a vehicle somewhat; concern has been raised about reduced driver visibility to the sides and rear of the vehicle.
- **Understep heaters.** May help keep entrance steps clear of ice and snow in cold weather.
- **Vandal locks.** "Vandal lock" systems may reduce vandalism and security concerns.
- **Video systems.** Onboard cameras can protect drivers, attendants, and their employers from unfounded allegations. A wide variety of recording technologies are now available for buses.
- **White roofs.** White roofs reduce the interior temperature of a vehicle by several degrees and may be useful in areas prone to hot weather.
- **Window height.** Lower windows allow young children to see out more easily, possibly reducing boredom and related discipline problems.



## Bus Specifications

*Assess your vehicle needs, resources, and available features carefully before going to bid*

- Determine the general purpose of the bus you are ordering
- Review the department budgets and financing resources
- Assess future district needs and trends
- Solicit input from mechanics and drivers
- Meet with potential vendors for updates on product offerings and design
- Research trade material for ideas and information
- Review the specifications from your last purchase
- Check for notes for desired changes from a previous purchase year
- How important is fleet standardization?
- Network with other transportation professionals - learn from their knowledge and experiences
- Check for an available State contract

### Fuel Choices

- Gas
- Diesel
- Low Sulfur Diesel
- Green Diesel
- CNG
- LNG
- Electric
- Hybrids
- Other:

**What do  
YOU  
think?**

What's the best way to learn about current optional features when ordering a new bus?

## Driver's Defect Report

It is the driver's responsibility to complete a driver defect report (DDR) for every vehicle driven, every day. The DDR is the means of communicating defects and mechanical problems to the shop. DDR forms must be treated as legal documents - they could be used in court if a crash occurs.

## Preventive Maintenance

The main purpose of preventative maintenance is to prevent vehicle failures. A preventive maintenance program is essential in ensuring student safety. Accidents attributable to mechanical failure are blessedly rare in the pupil transportation industry, and much of the credit must go to the extremely effective and professional PM programs in use today.

The preventive maintenance program is only as good as the form your mechanics use to guide them through the inspection. A good PM form is a reminder to your mechanics of the scheduled inspection tasks. The completed form also documents the work.

**(Note: NAPT 501 includes a variety of sample PM forms.)**

### ***Advantages of Maintaining a Breakdown log***

- *Logs help determine frequency and types of breakdowns*
- *Help identify weak areas of your maintenance program*
- *Logs allow you to chart and calculate breakdown costs*
- *Helps document any interrupted service to the "customer"*
- *Analyzing breakdowns over time may be useful in modifying PM forms*
- *May reveal driver training gaps*
- *Analyzing breakdowns over time may help identify needed mechanic training*

**What do  
YOU  
think?**

Do your drivers and mechanics communicate respectfully with each other?

# Working with Students

## Pupil Management

*(From 2000 National School Transportation Specifications and Procedures)*

An effective pupil management program is a collaborative effort involving many groups of people in the school community. Parents, students, school bus drivers, school administrators, contract managers in districts where contract transportation is provided, law enforcement, and social service agencies must be part of the on-going process to motivate students to good behavior. It is the responsibility of the school district to ensure that a comprehensive student management program is developed so that all persons involved in the process are familiar with their responsibilities.

## Bus Rules

*In the space below, create a perfect set of "Student Bus Rules" to place in your operation's buses:*

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### ***The importance of student training***

*(From Improving School Bus Safety: Special Report 222, 1989)*

*States and local school districts are encouraged to provide behavior-based pedestrian safety education programs to children in grades K through 6. These programs should stress safe and appropriate behavior in school bus loading zones...The measures that offer the greatest potential safety improvement per dollar invested are higher seat backs and pupil education programs.*

## Bus Evacuation Drills

*(From 2000 National School Transportation Specifications and Procedures)*

### Important factors pertaining to school bus evacuation drills:

- a. Safety of pupils is of the utmost importance and must be first considered.
- b. All drills should be supervised by the principal or by persons assigned to act in a supervisory capacity.
- c. The bus driver is responsible for the safety of the pupils. When the driver is incapacitated and unable to direct the evacuation, school patrol members, appointed pupils or adult monitors should be authorized to direct these drills. It is important to have regular substitutes available.

**What do  
YOU  
think?**

Who should conduct bus evacuation drills - bus drivers or teachers?

## The Importance of School Bus Drills

*From National Transportation Safety Board Highway Accident Report #90-02, "Collision Between Mission Consolidated Independent School District School Bus and Vallye Coca-Cola Bottling Company, Inc. Tractor Trailer, Intersection of Bryan Road and Texas Farm-to-Market Road 676, Alton, Texas, September 21, 1989" (Note: 21 students drowned in the Alton tragedy)*

"The Safety Board concludes that school bus emergency evacuation drills would have improved the occupants' chances to escape...Because of time constraints, students will often be responsible for rescuing themselves and fellow passengers before help arrives from bystanders and public safety officials. Therefore, comprehensive guidance is needed to train school busdrivers and public safety officials in emergency egress...A key component in this guide should be a section dealing with training each passenger to develop a personal escape plan for use on a school bus."

## Bus Safety Drill Checklist

### ***Bus Safety Drill Checklist/Compliance Form***

*Instructions to driver/attendant: use this checklist as a guide when conducting a bus safety drill.*

*Tip: strongly encourage active student participation in the drill - don't just lecture at them!*

- ☐ **INTRODUCE THE DRILL.** Explain why drills are conducted; stress the importance of following driver directions in an emergency; introduce your student helpers (before the drill, select two reliable students seated near the rear of the bus who ride most of the route).
- ☐ **RIDERSHIP RULES.** Read aloud and briefly discuss the posted bus rules (stress the why's). Discuss disciplinary consequences for students who refuse to follow the bus rules.
- ☐ **EMERGENCY EQUIPMENT AND EXITS.** Have students point out the location of all emergency equipment - extinguisher, first aid kit, reflectors, etc. - and point out and open all exits. Don't forget the passenger door. Explain the danger of playing with emergency exits.
- ☐ **DISABLED DRIVER.** Demonstrate how to stop, secure, and shut off the bus; explain why students should know the bus number and route; demonstrate how to use the bus radio.
- ☐ **PRACTICE EVACUATION.** To prevent injuries, demand order during evacuation practice. Student helpers should serve as outside "spotters" during the evacuation practice. Require all students to "sit and slide" from the emergency door - never let students jump out the door or engage in horseplay during the practice. Students should leave bookbags and all other personal items on the bus. Point out a safe area for students to gather outside the bus; tell students to "buddy up." Younger students should hold hands as they move away from the bus. (Note: Shut off and secure the bus and activate red flashers during the evacuation practice.)
- ☐ **SAFE LOADING AND UNLOADING DEMONSTRATION.** After the evacuation practice is over, gather students in front of you bus and demonstrate the Safe Crossing Rule; let students point out Danger Zones; review your operation's "Safe to Cross" and "Danger - Go Back!" signals; remind students to never try to retrieve something they've dropped near the bus, and never to run after a missed bus; explain the dangers of drawstrings or other dangling clothing; discuss the special dangers of loading and unloading in severe weather conditions.
- ☐ **CONCLUDE THE DRILL.** If your students paid attention and did a good job, remember to thank them! Thank any teachers or school officials who assisted or observed.

• • •

**DRIVER NAME:** \_\_\_\_\_

**ATTENDANT NAME (if applicable):** \_\_\_\_\_

**BUS #:** \_\_\_\_\_ **DATE/TIME OF DRILL:** \_\_\_\_\_

**SCHOOL OBSERVER INITIALS (if applicable):** \_\_\_\_\_

**COMMENTS:** \_\_\_\_\_

(File this form with the Transportation Office when drill is completed)

Courtesy Pupil Transportation Safety Institute - Syracuse, NY

# Safe Routing and Bus Stops

## Route and Bus Stop Safety Best Practice Checklist

(from *NAPT 608*)

***Which of the following best practices does your operation presently utilize?***

- ☐ Crossovers are minimized
- ☐ Bus stops are not placed at or near significant hazards (i.e., at RR crossings, in locations of limited visibility, at busy intersections, etc.) whenever possible
- ☐ Significant hazards are noted on route sheets
- ☐ Crossers are also noted on route sheets
- ☐ RR crossing accident data is considered when establishing routes
- ☐ Bus stops are not placed too close together
- ☐ Backing turn-arounds on routes is minimized
- ☐ When backing is required at or near a bus stop, drivers are required to have students on board the bus during the backing
- ☐ Safe waiting area for students is provided at bus stops
- ☐ Students are required to wait in an orderly fashion at bus stops
- ☐ Parent volunteers provide supervision at bus stops
- ☐ Buses are not routed on dangerous or poorly maintained roadways
- ☐ Drivers are not permitted to alter a routes or a bus stop without authorization
- ☐ Severe weather emergency routes and stops are determined ahead of time
- ☐ Bus drivers are authorized to determine that a roadway is too dangerous to proceed under severe, rapidly-changing weather conditions
- ☐ Access to late or activity buses is controlled by a pass system
- ☐ Drivers are not permitted to discharge students anywhere other than an approved stop without authorization
- ☐ Parents must establish consistent drop-off locations (i.e., not allowed to have several different drop-offs each week, erratic schedule, etc.)
- ☐ Drivers are required to report route hazards
- ☐ Drivers are informed of the identifies of pedophiles living near bus stops
- ☐ Kindergartners wear identification tags
- ☐ Attendants or spare drivers ride Kindergarten routes the first few weeks of school
- ☐ Drivers and students are required to practice middle loading whenever possible
- ☐ An up-to-date student roster is maintained on the bus
- ☐ Drivers are required to update their routes when changes occur, and safety supervisors monitor this
- ☐ Drivers are required to conduct a dry run in a bus before the start of the school year (and whenever assigned to a new route)
- ☐ Written route sheets are provided to drivers
- ☐ Time pressure on routes is evaluated realistically - times on computerized routes are manually checked
- ☐ All routes and bus stops are reviewed by safety staff at least once a year
- ☐ Substitute drivers are familiar with the routes they may be assigned (for instance, by riding with the regular driver when otherwise unassigned)
- ☐ Regular route drivers appoint reliable "substitute driver student helpers" to help direct the substitute
- ☐ Health and safety-significant information about students with special needs and conditions is shared with drivers and attendants

## Routing and Scheduling

*(From 2000 National School Transportation Specifications and Procedures)*

It is necessary to procure a map of the area served by a particular school or school system in order to establish bus routes that will adequately meet the needs of pupils in a particular area. Information on the road conditions, railroad crossings and other factors that might affect the particular operation should be recorded along with the location of homes and the number of school-age children in each. Satisfactory school bus stops must be identified along streets and highways where buses can travel with the least amount of risk. The number of pupils to be transported and the distance to be traveled are primary factors in allocating equipment for a particular area. Pupils should be assigned to specific stops according to walking distances, grade level and the school attended. Consideration should be given to the distances between stops to comply with the minimum distance required to activate the red and amber lighting systems.

**What do  
YOU  
think?**

What type of hazards  
should be listed on  
printed route sheets?

## Needs Analysis and Remediation

*(Adapted from NAPT 608)*

**Instructions:**

***You are a Safety Supervisor for a large school district. Over the past six months, three students have been struck and injured by passing motorists. Other bus drivers have also reported close calls of motorists passing buses while students were crossing the road.***

Based on this information, how would you define the safety problem(s)?

Is there anything else you would do to further investigate the situation and better understand the nature of the problem(s)?

What corrective actions in each of the following areas would you propose to address the problem(s)?

- Observation
- Student training
- Driver training
- Driver attitude and morale
- Routing and bus stops
- Equipment
- Public education/community response
- Vehicle and equipment selection and maintenance



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# Review

## Did You Learn:

- The roots of our industry?
- Who makes the rules we must follow?
- How LEA's are organized?
- Basic principles of administration, routing, and safety?
- The importance of training children?



**What do  
YOU  
think?**

How does change happen  
in a pupil transportation  
organization?

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## Course Self-Assessment

1. List 3 ways in which student dynamics have changed.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. List 2 types of routing systems and an advantage and disadvantage of each.  
\_\_\_\_\_  
\_\_\_\_\_
3. Which agency has regulatory authority over school transportation?  
A) NHTSA  
B) NTSB  
C) NASDPTS  
D) NAPT
4. List 2 equipment recommendations made in Guideline 17 to improve safety.  
\_\_\_\_\_  
\_\_\_\_\_
5. List 2 operation recommendations made in Guideline 17.  
\_\_\_\_\_  
\_\_\_\_\_
6. According to Guideline 17 states should replace school buses manufactured prior to what date?  
\_\_\_\_\_
7. The American with Disabilities Act requires employers to make \_\_\_\_\_  
for employees who have qualifying disabilities.
8. List 4 areas in which employees should receive training.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. List 3 times when employees will need to have drug/alcohol tests.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
10. Give an example of a type of sexual harassment.  
\_\_\_\_\_  
\_\_\_\_\_
11. What is an advantage of conventional style school bus body?  
\_\_\_\_\_  
\_\_\_\_\_
12. What is an advantage of a transit style school bus body?  
\_\_\_\_\_  
\_\_\_\_\_
13. List an advantage of a gasoline engine.  
\_\_\_\_\_  
\_\_\_\_\_
14. Describe one advantage of a diesel engine.  
\_\_\_\_\_  
\_\_\_\_\_
15. "Driver attitude affects the behavior of students." T or F
16. "The main reason for rules on the school bus are for safety." T or F
17. "Video tapes can always be used to discipline the driver." T or F
18. "All school buses are yellow." T or F
19. "Crossing arm or gates are required on all school buses." T or F
20. "Automatic transmissions cost less to purchase." T or F

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1840 Western Avenue  
Albany, NY 12203

(800) 989-NAPT  
[www.napt.org](http://www.napt.org)